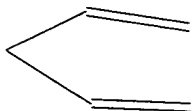


=>  
Uploading C:\Program Files\Stnexp\Queries\516d.str

L18        STRUCTURE UPLOADED

=> d  
L18 HAS NO ANSWERS  
L18        STR



Structure attributes must be viewed using STN Express query preparation.

=> s l18  
REGISTRY INITIATED  
Substance data SEARCH and crossover from CAS REGISTRY in progress...  
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

SAMPLE SEARCH INITIATED 15:37:53 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 4853 TO ITERATE

41.2% PROCESSED        2000 ITERATIONS        50 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00:01

FULL FILE PROJECTIONS:    ONLINE    \*\*COMPLETE\*\*  
                         BATCH    \*\*COMPLETE\*\*  
PROJECTED ITERATIONS:        92883 TO    101237  
PROJECTED ANSWERS:            44540 TO    50384

L19        50 SEA SSS SAM L18

L20        44 L19

=> s l20 and mesogen  
          2068 MESOGEN  
L21        1 L20 AND MESOGEN

=> d ibib abs hitstr

L21 ANSWER 1 OF 1    CAPLUS    COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER:    2005:591929    CAPLUS  
DOCUMENT NUMBER:     143:122848  
TITLE:                Reactive mesogens including 2,7-disubstituted-9,9-  
                         dialkylfluorene chromophores and methods for forming  
                         light-emitting and charge-transporting layers on  
                         substrates using them  
INVENTOR(S):         Kelly, Stephen M.; O'Neill, Mary; Koch, Gene C.  
PATENT ASSIGNEE(S):    UK  
SOURCE:                U.S. Pat. Appl. Publ., 47 pp., Cont.-in-part of U.S.  
                         Ser. No. 948,748.  
                         CODEN: USXXCO  
DOCUMENT TYPE:         Patent  
LANGUAGE:              English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005146263	A1	20050707	US 2004-994434	20041123

PRIORITY APPLN. INFO.:

US 2003-505446P	P	20030925
US 2004-563343P	P	20040416
US 2004-948748	A2	20040924

AB Reactive mesogens are described which comprise 2,7-disubstituted-9,9-dialkylfluorene chromophores. Methods for forming light-emitting and charge-transporting layers on substrates are also described which entail applying the mesogens to a substrate and optionally photopolymerizing them. Diverse alignments may be imparted by an alignment layer(s). Methods for forming light-emitting polymers from the mesogens are also described.

IT 819079-26-0 819079-49-7

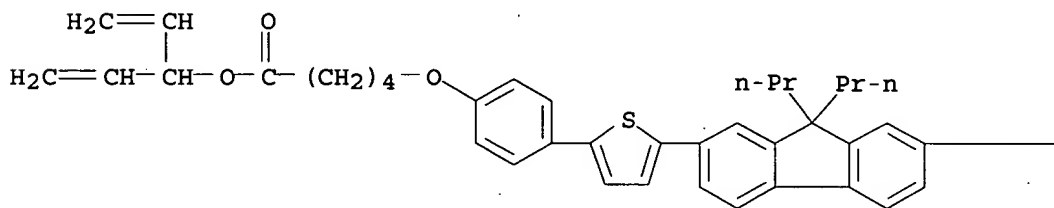
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)

(reactive mesogens including 2,7-disubstituted-9,9-dialkylfluorene chromophores and methods for forming light-emitting and charge-transporting layers on substrates using them)

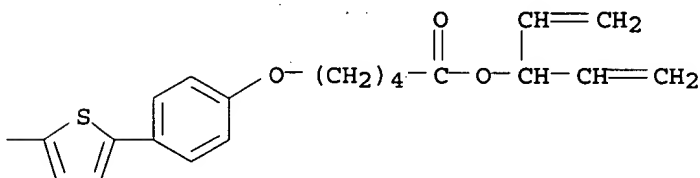
RN 819079-26-0 CAPLUS

CN Pentanoic acid, 5,5'-[(9,9-dipropyl-9H-fluorene-2,7-diyl)bis(5,2-thiophenediyl-4,1-phenyleneoxy)]bis-, bis(1-ethenyl-2-propenyl) ester (9CI) (CA INDEX NAME)

PAGE 1-A



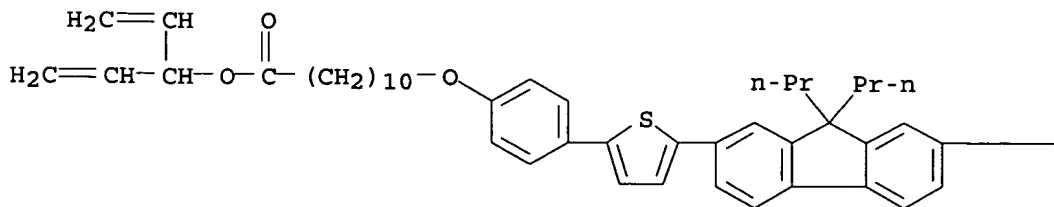
PAGE 1-B

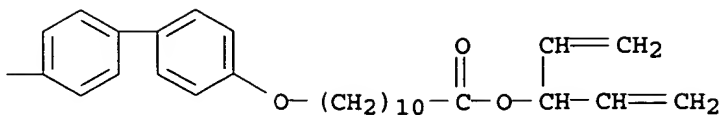


RN 819079-49-7 CAPLUS

CN Undecanoic acid, 11-[4-[5-[7-[4'-[(11-[(1-ethenyl-2-propenyl)oxy]-11-oxoundecyl]oxy][1,1'-biphenyl]-4-yl]-9,9-dipropyl-9H-fluorene-2-yl]-2-thienyl]phenoxy]-, 1-ethenyl-2-propenyl ester (9CI) (CA INDEX NAME)

PAGE 1-A





=> s l18 full

# REGISTRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress...

Use DISPLAY HITSTR (or PHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 15:39:06 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 96031 TO ITERATE

100.0% PROCESSED 96031 ITERATIONS  
SEARCH TIME: 00.00.01

46728 ANSWERS

L22 46728 SEA SSS FUL L18

L23 106306 L22

=> s l23 and mesogen  
2068 MESOGEN

L24 13 L23 AND MESOGEN

=> s l24 and py<1999  
19037481 PY<1999

L25 2 L24 AND PY<1999

=> d 1-2 ibib abs hitstr

L25 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:641658 CAPLUS

DOCUMENT NUMBER: 127:278707

TITLE: Mesophase transitions in liquid crystal polymers

AUTHOR(S): Makaruk, Leszek; Furman, Jolanta

CORPORATE SOURCE: Dep. Chem., Warsaw Univ. Technology, Warsaw, 00-664, Pol.

SOURCE: Reactive & Functional Polymers (1997), 33(2,3), 225-231

CODEN: RFPOF6; ISSN: 1381-5148

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Liquid crystalline main-chain polysebacates containing mesogenic units with odd member bridging groups, and mesogenic units elongated by introduction into bridging groups cyclohexanone or aromatic or ferrocene units, were synthesized. Bisphenols obtained from p-hydroxybenzaldehyde (or its derivs.) and various ketones by aldol condensation were used as a source of mesogenic units. The effect of the length and the structure of mesogenic units (MU) on mesophase transition temperature was studied. Polyesters containing MU with an odd member of bridging groups exhibit liquid crystalline properties. Extending a mesogenic unit by the introduction of alicyclic or ferrocene units within the bridging group increases the mesophase transition temperature much less than does the introduction of a third aromatic ring.

IT 196599-28-7P 196599-29-8P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
... (mesophase transitions in liquid crystal polyesters containing mesogens with  
cyclic or ferrocene units)

RN 196599-28-7 CAPLUS

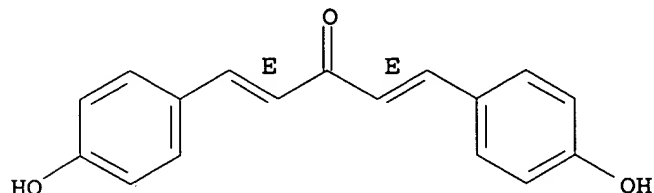
CN Decanedioyl dichloride, polymer with stereoisomer of 1,5-bis(4-  
hydroxyphenyl)-1,4-pentadien-3-one (9CI) (CA INDEX NAME)

CM 1

CRN 196599-27-6

CMF C17 H14 O3

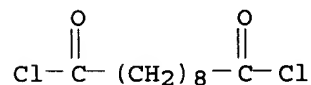
Double bond geometry as shown.



CM 2

CRN 111-19-3

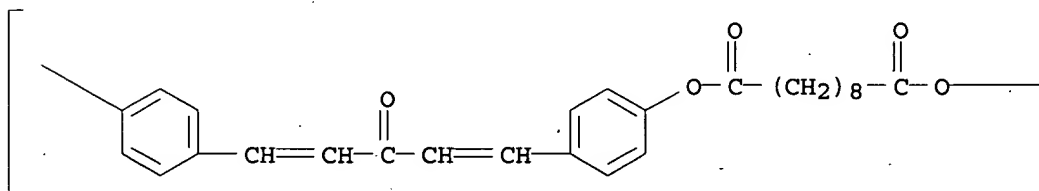
CMF C10 H16 Cl2 O2



RN 196599-29-8 CAPLUS

CN Poly[oxy(1,10-dioxo-1,10-decanediyl)oxy-1,4-phenylene-1,2-  
ethenediylcarbonyl-1,2-ethenediyl-1,4-phenylene], (E,E)- (9CI) (CA INDEX  
NAME)

PAGE 1-A



PAGE 1-B

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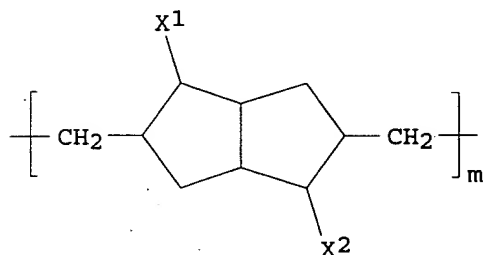
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1997:410668 CAPLUS

DOCUMENT NUMBER: 127:34713  
 TITLE: Liquid crystal polymers of photopolymerized 1,4-pentadienes  
 INVENTOR(S): Hall, Alan William; Lacey, David; Sage, Ian Charles; Blackwood, Keith Moray; Jones, Michelle  
 PATENT ASSIGNEE(S): Secretary of State for Defence, UK  
 SOURCE: PCT Int. Appl., 49 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9716504	A1	19970509	WO 1996-GB2654	19961031 <--
W: GB, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
GB 2321463	A1	19980729	GB 1998-8767	19961031 <--
GB 2321463	B2	19990630		
EP 858493	A1	19980819	EP 1996-935125	19961031 <--
EP 858493	B1	20000927		
R: DE, FR, GB				
JP 11514683	T2	19991214	JP 1997-517146	19961031
US 5968411	A	19991019	US 1998-66338	19980429
PRIORITY APPLN. INFO.:			GB 1995-22361	A 19951101
			WO 1996-GB2654	W 19961031

OTHER SOURCE(S): MARPAT 127:34713  
 GI.

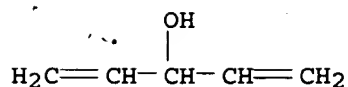


I

AB Compds. for liquid crystal devices, piezoelec. devices, pyroelec. devices and in optical recording media, are I [ $m \geq 5$ ;  $X1$  and  $X2 = YQZP$ ;  $P =$  mesogenic group;  $Y = COO, OCO, O, S, CHOH, CHF, CH_2$ ;  $Q = (CH_2)_n$  where  $\geq 1$  nonadjacent methylenes may be replaced by  $O$  and  $n = 1-20$ ;  $Z = O, S$ , direct bond,  $COO, OCO$ ; when  $Y = CH_2$  then  $n$  may also be  $0$ ;  $X1$  and  $X2 = H, OH, OCOR_1, COOH, CO_2R_1, (CH_2)_pOH, (CH_2)_pCO_2H, (CH_2)_pOR_1$  or  $(CH_2)_pCO_2R_1$  and  $p = 1-20, R_1 = H$  or  $C1-16$ -alkyl, when  $R_1 = C2-16$ -alkyl the terminal  $Me$  group may be replaced by  $Br$  or  $Cl$ ; provided that  $\geq 1$  of  $X1$  and  $X2 = YQZP$ ]. Thus, 1,4-pentadien-3-ol was stirred with 11-bromoundecanoic acid in dicyclohexylcarbodiimide and dimethylaminopyridine for 6 h at room temperature to give an alkylated pentadiene (m.p.  $45-47^\circ$ ), which was treated with 4-cyano-4'-hydroxybiphenyl to give a mesogenic group-containing monomer (m.p.  $61-63^\circ$ ). The photopolymer I ( $X1, X2 = OCO(CH_2)_{100}-p-(C_6H_4)_2-p-CN$ ) has number-average mol. weight 8200, weight-average mol. weight 17200, and polydispersity 2.1.

IT 922-65-6, 1,4-Pentadien-3-ol  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (in manufacture of liquid crystal polymers of photopolymerized 1,4-pentadienes)

RN 922-65-6 CAPLUS  
 CN 1,4-Pentadien-3-ol (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



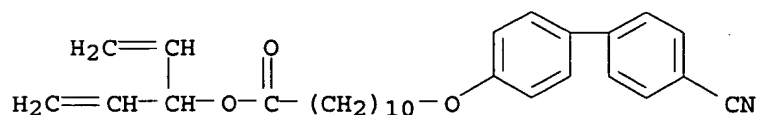
IT 179231-49-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(manufacture and polymerization; in manufacture of liquid crystal polymers of photopolymer, 1,4-pentadienes)

RN 179231-49-3 CAPLUS

CN Undecanoic acid, 11-[(4'-cyano[1,1'-biphenyl]-4-yl)oxy]-, 1-ethenyl-2-propenyl ester (9CI) (CA INDEX NAME)



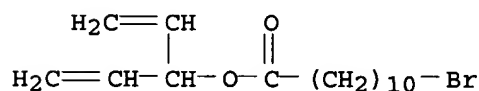
IT 190721-56-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(reaction with 4-cyano-4'-hydroxybiphenyl; in manufacture of liquid crystal polymers of photopolymer, 1,4-pentadienes)

RN 190721-56-3 CAPLUS

CN Undecanoic acid, 11-bromo-, 1-ethenyl-2-propenyl ester (9CI) (CA INDEX NAME)



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